

REMARKS

This is in response to the Office Action mailed on February 05, 2004. In the Office Action, (i) claims 1-18 were rejected under 35 U.S.C. 103(a); (ii) the IDS was objected; and (iii) the specification was objected.

Reexamination and reconsideration of this case is respectfully requested in view of the foregoing amendments and the following remarks.

Claims 1-18 were previously pending. Claims 1-3, 6-12 and 15-18 have been amended by this response. Claims 4-5 and 13-14 have been cancelled without prejudice. Claims 19-39 have been added. Accordingly, claims 1-3, 6-12, and 15-39 are now at issue. Of those at issue, claims 1, 10 and 31 are independent claims.

Applicant believes that no new matter has been added by this response.

I. Information Disclosure Statement

a) Item Y - The Office Action requested the missing descriptive data for Item Y. The following information is provided:

"10 pages; AutoTestCon 1997 Proceedings"

b) Item AA - According to the Office Action, Item AA has yet to be considered. However, the Examiner previously considered Item AA as Item W "Table of COMPONENT FAILURE MODES, Items 1-33" on the form PTO-892 mailed with the Office Action on 11/01/2002. That is, the Examiner's Item W is Applicant's Item AA.

In view of the foregoing, Applicant respectfully requests the withdrawal of the objection to the Information Disclosure Statements.

II. Draftsman Objections to the Drawings

As indicated in the Office Action, the Applicant appreciates that the Draftsman's Objections to the Drawings will be held in abeyance until allowable subject matter may be indicated.

III. Objection to the Specification

The specification is objected to because the Office Action alleges that the "sensitivity" as defined in the specification is inconsistent with the generally accepted meaning of "sensitivity." Applicant respectfully disagrees and traverses this objection.

As stated by Tucker, "Sensitivity analysis refers to methods of calculating the rates of change of (1) response quantities [] with respect to changes in the structure characteristics and (2) the optimum design variable values with respect of changes in the structure parameters []." Tucker does not mention anything about division in this sentence. This sentence only states that there are various methods of calculations used to perform sensitivity analysis. Moreover, non-linearities may exist so that simple division of a function by the change of a variable may be inappropriate to determine sensitivities.

Furthermore, Tucker does not seem to consider "**circuit**" sensitivity analysis as it does not provide any example thereof. Tucker seems to be more concerned about mechanical engineering than electrical engineering from a reading of its examples.

In an electrical engineering context of an electrical circuit, a better definition is "Sensitivity: A measure of the extent to which a given circuit performance measure is affected by a given component within the circuit." [The Electrical Engineering Handbook, Edited by Richard C. Dorf; Published by CRC Press; Copyright 1993; page 682; copy attached hereto as Appendix I]. More specifically for AC/DC sensitivity analysis of a circuit using SPICE simulation, "SPICE calculates the difference in an output variable, either a node voltage or a branch current, by perturbing each parameter of each device independently." [SMPS Simulation with SPICE3, by Steven M. Sandler, Copyright 1997, page 12; copy attached hereto as Appendix II].

These definitions in these two electrical engineering related books are more closely related to that used in Applicant's specification where it is stated that "sensitivity is the vector measurement calculated when a parameter value is varied from nominal minus the vector measurement when the parameter value is nominal." [Specification, page 8, lines 8-10].

It is respectfully submitted that there is not one global generally accepted definition for sensitivity and sensitivity analysis, but rather definitions that are based on context.

Moreover, sensitivity analysis is very common in the relevant art of circuit simulation. It is respectfully submitted that the meaning of sensitivity analysis is well understood by those skilled in the art of circuit simulation.

Thus for the foregoing reasons, Applicant respectfully requests the withdrawal of this objection to the specification.

IV. Claim Interpretation

The Office Action suggests that claim language is interpreted in light of the specification. However, in its interpretation of "routine" and "nominal selected vector measurement", it doesn't appear that the specification was reviewed to interpret the meanings of these phrases.

The Office Action states that the "Examiner hereby interprets 'routine' as automating a procedure by writing the associated algorithm into the computer program." [Final Office Action, page 5, section 36, lines 1-2]. However in reviewing the specification, "routine" is parenthetically used after the word "command" in a number of instances. [e.g., see Specification; page 8; lines 10, 14, 17, 23, 29, and 31]. In other instances, "routine" is parenthetically used after the phrase "a series of commands" in a number of instances. [e.g., see Specification; page 10; lines 5, 11, 14, and 15-16]. The word "routine" should instead be interpreted to mean one or more commands in view of the specification and not "automating a procedure by writing the associated algorithm into the computer program" as is suggested by the Office Action. Accordingly, the phrases "perturbing routine", "simulation routine", and "analysis routine" should be interpreted as one or more commands to perform the task specified in the claim or claims.

The Office Action states that in claims 7, 8, 9, the "Examiner hereby interprets 'nominal selected vector measurement' as a constant or basis for calculations." [Final Office Action, page 6, section 40, lines 1-2]. However, the

phrase "nominal selected vector measurement" is preceded by "said" to indicate that it's not the first instance in the claim. The phrase "nominal selected vector measurement" is a shorthand representation of the phrase "a nominal value for said selected vector measurement" recited in unamended claim 4 (now cancelled). Applicant has amended claims 6-9 and 15-18 to expand the phrase to that used in claims 4 and 13 (now cancelled), respectively, and pluralized the phrase in order to avoid confusion and be consistent with the independent claims.

In reviewing the specification, it states that a "user sets the desired vector measurements for the simulation template analysis. This can be, for example, a voltage at a particular node, a current along a particular branch, and/or the power dissipation across a particular component." [Specification, page 6, line 31 - page 7, line 2]. The specification further states that "a reference simulation is merely a simulation with parameter values at their nominal values". [Specification, page 6, line 31 - page 7, line 2]. Additionally, the specification states that "nominal values for the parameters are specified in the netlist." [Specification, page 8, line 3].

A vector measurement such as a current, voltage, or power dissipation in a circuit may be time varying and thus not a constant. That is, a vector measurement may be an equation or function of one or more variables. After reviewing the specification, one of ordinary skill in the art would more likely interpret the shortened phrase "nominal selected vector measurement" and its long hand form "nominal value for said selected vector" to mean a selected vector measurement in a reference simulation when circuit parameters are at their nominal values. This is consistent with the unamended claim language of claim 4 (now cancelled) from which claims 6-9

previously depended. Unamended claim 4 (now cancelled) recited "perform[ing] a reference simulation of said netlist to arrive at a ***nominal value for said selected vector measurement.***" (emphasis added) [Claim 4 prior to cancellation, lines 2-3].

V. Claim Rejections 35 U.S.C. 103

In sections 43-92 of the Final Office Action, claims 1-18 stand rejected under 35 U.S.C. 103(a) in view of U.S. Patent No. 5,278,769 issued to Bair et al. ("Bair") in view of legal precedent and other references. More specifically, claims 1, 2, 4 and 5 stand rejected 35 U.S.C. 103(a) in view of Bair and legal precedent (making automatic). Claim 3 stands rejected under 35 U.S.C. 103(a) in view of Bair, legal precedent (making automatic) and legal precedent (eliminating elements). Claims 6, 8, and 9 stand rejected under 35 U.S.C. 103(a) in view of Bair, legal precedent (making automatic), and "The Computer Science and Engineering Handbook" by Allen B. Tucker, Jr. ("Tucker"). Claim 7 stands rejected under 35 U.S.C. 103(a) in view of Bair, legal precedent (making automatic), Tucker, and the "Handbook of Mathematical Sciences, 5th Ed., by William H. Beyer ("Beyer"). Applicant respectfully traverses these 35 USC 103(a) claim rejections of claims 1-18.

"To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The

teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)" [MPEP § 2142; 8th Edition, Rev. 1, Feb. 2003, Pg. 2100-124].

Applicant has amended independent claims 1 and 10 to clarify the claimed invention. The elements of dependent claim 4 have been added into independent claim 1. The elements of dependent claim 13 have been added into independent claim 10. Accordingly, dependent claims 4 and 13 have been cancelled without prejudice. Instances of the word --SPICE-- have been inserted prior to each instance of the word "netlist" to clarify that it is a "SPICE netlist" that is being modified. One instance of --selected-- was inserted prior to "vector measurements" to clarify the later instance of the phrase "selected vector measurements". In independent claim 1 misspellings of the words "parameter" and "design", made in the prior response over the claims as originally filed, have been corrected.

A. Claim Elements are Not Disclosed by Cited References

Applicant respectfully submits that Bair in view of legal precedent and other cited references does not disclose Applicant's combination of elements as recited in pending claims 1-18.

Applicant's invention as claimed in independent claims 1 and 10 relates to a computer program and method of modifying a SPICE netlist though use of a template in order to provide additional circuit analysis involving a perturbing routine where

circuit parameters are periodically altered, a simulation routine where circuit simulations are run for each circuit parameter being varied, and an analysis routine to perform a specified analysis on the results of the circuit simulations.

Regarding independent claim 1, the Office Action alleges that but for "routine", Bair discloses:

"A-perturbing is disclosed by Bair at Column 3 line 10 'The circuit-level simulation is run under several different simulated conditions'.

B-simulation is disclosed by Bair at Column 3 line 10 'The circuit-level simulation is run under several different simulated conditions'.

C-analysis is disclosed by Bair at Column 3 line 10 'The circuit-level simulation is run under several different simulated conditions of power supply voltage and temperature characteristics to determine the worst and best case delay characteristics, rise and fall times'." [Final Office Action, page 7, sections 46-48].

Applicant respectfully disagrees.

Contrary to the assertion by the Office Action, Bair does not disclose altering **circuit parameter values** of a circuit design. Bair at Column 3 line 10 only discloses "different simulated conditions of power supply voltage and temperature characteristics" in order to determine basic timing information. That is, Bair does not disclose perturbing [routine to] said SPICE netlist for **altering circuit parameter values of said circuit design** in a pre-determined manner" as recited in claim 1. (emphasis added) [Claim 1 as amended, lines 8-9].

As Bair does not disclose **altering circuit parameter values** of a circuit design, it follows that Bair does not disclose "adding a second simulation routine to said SPICE netlist for

performing ***simulations of said circuit design for respective altered circuit parameter values*** to arrive at respective selected vector measurements" as recited in claim 1. (emphasis added) [Claim 1 as amended, lines 11-14].

Because the ***altered circuit parameter values*** of the circuit design are used to generate the respective selected vector measurements, Bair also does not disclose "adding an analysis routine to said SPICE netlist for ***manipulating at least one of said selected vector measurements*** in accordance with said pre-determined analysis" as recited in claim 1. (emphasis added) [Claim 1 as amended, lines 15-18]. Bair at Column 3 line 10 only discloses determining basic timing information, "worst and best case delay characteristics, rise and fall times". Applicant's pre-determined analyses, such as circuit sensitivity analysis for example, require more than a basic timing analysis.

None of the other references cited by the Office Action in rejecting the claims disclose circuit simulation.

However, the Office Action alleges that "routine is disclosed by Legal Precedent (making automatic)". [Final Office Action, page 7, section 50, line 1]. Applicant respectfully disagrees.

The Office Action has interpreted "routine" as automating a procedure by writing the associated algorithm into the computer program. As discussed previously above, this interpretation is mistaken in view of the specification. The word "routine" should instead be interpreted to mean one or more commands. The phrases "perturbing routine", "simulation routine", and "analysis routine" should be interpreted as one or more commands to perform the task specified in the claim or claims.

The Legal Precedent does not ***disclose*** any "routine". That is the cited Legal Precedent, *In re Venner and Bowser*, does not

disclose any commands or software routine of a computer readable medium or a SPICE netlist. As discussed further below, *In re Venner and Bowser* involves an "apparatus for molding trunk pistons" in the mechanical arts.

Moreover even if Bair is properly modified to be made automatic by legal precedent, the combination of Bair and the legal precedent (making automatic) still does not disclose Applicant's claimed elements. As discussed previously, Bair does not disclose "**altering circuit parameter values** of a circuit design" in the associated elements of the claims. Thus, even if the legal precedent of making automatic is properly applied to modify Bair, Applicant's combination of claimed elements is not disclosed nor made obvious.

Thus, Applicant respectfully submits that independent claim 1 is not made obvious by the cited combination.

Regarding dependent claim 2, the Office Action alleges that "adding tolerances" is disclosed by Bair at Column 3 line 12 "determine the worst and best case delay characteristics, rise and fall times." [Final Office Action, page 9, section 62]. Applicant respectfully disagrees.

Bair at Column 3 line 12 does not disclose "**adding tolerances** in the netlist **for [the] circuit parameter values**" as recited in claim 2. (emphasis added) [Claim 2 as amended, lines 2-3]. The worst and best case delay characteristics, rise and fall times disclosed by Bair are basic timing information for an output of a circuit in response to an input stimulus. The different conditions for power supply voltage and temperature do not disclose adding tolerances *for circuit parameter values* into a netlist.

Regarding dependent claim 4 (now amended into independent claim 1), the Office Action alleges that "'reference simulation

of said netlist to arrive at a nominal value for said selected vector measurement' is disclosed by Bair at Column 3, line 3 'The logic circuit and the transistor circuits are then analyzed to determine what stimuli should be applied to the circuit level model to arrive at simulation results which will give the best indication of the delay characteristics of the circuit'."

[Final Office Action, pages 9-10, section 71, lines 1-5].

Applicant respectfully disagrees.

Bair only discloses here a manual analysis to determine what input stimulus should be applied, such as the pattern of logical ones and zeroes, and the timing of any input changes prior to a simulation.

Regarding dependent claim 5, Applicant has cancelled claim 5 so that this rejection is now moot. However as discussed previously with respect to independent claim 1, because the **altered circuit parameter values** of the circuit design are used to generate the respective selected vector measurements, Bair does not disclose "adding an analysis routine to said SPICE netlist for **manipulating at least one of said selected vector measurements** in accordance with said pre-determined analysis" as recited in claim 1. (emphasis added) [Claim 1 as amended, lines 11-14]. Bair at Column 3 line 10 only discloses determining basic timing information, "worst and best case delay characteristics, rise and fall times". Applicant's pre-determined analyses, such as circuit sensitivity analysis for example, require more than a basic timing analysis.

Regarding dependent claim 6, the Office Action alleges that a "pre-determined analysis includes a sensitivity analysis" is disclosed by Tucker. [Final Office Action, page 10, section 78, lines 1-3]. Applicant respectfully disagrees.

Tucker does not disclose performing a sensitivity analysis of an electrical circuit. Applicant's vector measurements are generated by performing simulations of a circuit design as recited in independent claim 1. Thus, Tucker does not disclose "a sensitivity analysis involving determining a difference between said respective selected vector measurements and said nominal values for said selected vector measurements" as recited in amended claim 6. [Claim 6, lines 4-7].

Regarding dependent claim 7, the Office Action alleges that a "root summed square analysis" is disclosed by Beyer's Page 727 "Standard Deviation". [Final Office Action, page 10, section 83, lines 1-3]. Applicant respectfully disagrees.

Beyer does not disclose performing a root summed square analysis of an electrical circuit. Applicant's vector measurements are generated by performing simulations of a circuit design as recited in independent claim 1. Moreover, Beyer uses a mean of a sample and divides by $(n-1)$, the number of samples less one. Thus, Beyer does not disclose "a root summed square analysis involving a sum of the square of said difference between said respective selected vector measurements and said nominal values for said selected vector measurements" as recited in amended claim 7. [Claim 7, lines 3-6].

Regarding dependent claim 8, the Office Action alleges that an "extreme value analysis" is disclosed by Bair at Column 3 line 11 "different simulated conditions ... best and worst case". [Final Office Action, page 11, section 87, lines 1-2]. Applicant respectfully disagrees.

As discussed previously, Bair at Col. 3, lines 10-13 does not disclose altering circuit parameter values, only power supply voltage and temperature. Thus, Bair does not disclose "circuit parameter values at their extreme tolerance values" as

recited in claim 8. [Claim 8 as amended, lines 7-8]. Without "circuit parameter values at their extreme tolerance values", Bair does not disclose "an extreme value analysis involving a determination of a maximum of said difference between said respective selected vector measurements and said nominal values for said selected vector measurements" as recited in claim 8. [Claim 8 as amended, lines 3-6].

Regarding dependent claim 9, the Office Action alleges that a "a worst case by sensitivity analysis involving a maximum of an absolute value of said difference between said respective selected vector measurements and said nominal selected vector measurements" is disclosed by Bair at Column 3 line 5 "simulation results which will give best indication of the delay characteristics" and Column 3 line 12 "determine worst and best case". [Final Office Action, page 11, section 90, lines 1-5]. Applicant respectfully disagrees.

As discussed previously with respect to independent claim 1, Bair does not disclose **altered circuit parameter values** of the circuit design being used to generate the respective selected vector measurements. Bair at Column 3 line 12 only discloses determining basic timing information, "worst and best case delay characteristics, rise and fall times", and the input stimulus (i.e., "what stimuli") to do so at Bair's Column 3, line 5. Thus, Bair does not disclose "a worst case by sensitivity analysis involving a maximum of an absolute value of said difference between said respective selected vector measurements and said nominal values for said selected vector measurements" as recited in claim 9. [Claim 9 as amended, lines 3-5].

Moreover, rejected claims 2-9 (claims 4-5 now cancelled) are dependent from independent claim 1. Applicant believes that

independent claim 1 has been placed in condition for allowance such that dependent claims depending there from are also in condition for allowance.

As independent claim 10 has similar elements in comparison with independent claim 1, including ***altering circuit parameter values of said circuit design***, the Applicant incorporates here by reference the foregoing remarks with respect to independent claim 1. Applicant believes this places independent claim 10 in condition for allowance with independent claim 1.

Rejected dependent claims 11-18 (claims 13-14 now cancelled) are dependent from independent claim 10 and have similar elements as found in dependent claims 2-9. Applicant believes that independent claim 10 has been placed in condition for allowance such that dependent claims depending there from are also in condition for allowance.

B. Legal Precedent (making automatic)

The Office Action relies on legal precedent of "making automatic" in rejecting claims 1-18.

"As discussed in MPEP § 2144, if the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may use the rationale used by the court." [MPEP § 2144.04, 8th Edition, Rev.2, May 2004; page 2100-138].

The cited legal precedent for automating a manual activity in the MPEP 2144.04(III) is *In re Venner and Bowser*, 120 USPQ 192 (CCPA 1958).

Applicant respectfully submits that the facts of *In re Venner and Bowser* are not sufficiently similar to the facts in

Applicant's patent application and the rejection of Applicant's claims to apply the legal precedent of "making automatic".

In re Venner and Bowser involved an appeal of apparatus claims and not method claims or claims of a computer readable medium. The *In re Venner and Bowser* claims were directed to an "apparatus for molding trunk pistons" in the mechanical arts and not a computer readable medium or a method of modifying a SPICE netlist for a software simulator in the general field of computer programming.

In re Venner and Bowser claims were drawn to a new combination of old elements found in the prior art. That is the individual elements were found in separate pieces of art but not together. The court of *In re Venner and Bowser* was able to piece together the prior art patents "to show the automatic means to initiate withdrawal of a core from a piston molding apparatus." [*In re Venner and Bowser*, 120 USPQ 192 at 195 (CCPA 1958)]. As was discussed previously, Applicant's claimed elements are not old elements found in the prior art. The Office Action admits that Bair "does not teach a computer program (script) to modify a netlist to add a simulation routine to perform simulations for each altered circuit parameter". [Final Office Action, page 8, section 55, lines 1-3].

Additionally, Applicant's claimed invention is not simply an automatic means to replace a manual activity to accomplish the same result. The end results of Applicant's claimed invention differs from that of Bair. The type of pre-determined analysis performed by Applicant's invention involves circuit parameter perturbations of circuit components which is not disclosed by Bair. Furthermore, Applicant's perturbing routine alters circuit parameter values of the circuit design in a pre-

determined manner, a function not shown as being manually performed by Bair.

Moreover, “[i]f the applicant has demonstrated the criticality of a specific limitation, it would not be appropriate to rely solely on case law as the rationale to support an obviousness rejection.” [MPEP § 2144.04, 8th Edition, Rev.2, May 2004; page 2100-138].

The routines added to the netlist to perform the recited functions as recited in the claims are important to Applicant's claimed invention. Without these routines, the various pre-determined analysis involving numerous circuit parameter perturbations and simulations, such as a sensitivity analysis, would most likely not be performed.

For the foregoing reasons, Applicant respectfully submits that it is inappropriate to rely on the legal precedent (making automatic) of *In re Venner and Bowser* to reject Applicant's claims.

C. Legal Precedent (eliminating element)

The Office Action relies on the legal precedent of “eliminating element” in rejecting claims 3 and 12.

“As discussed in MPEP § 2144, if the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may use the rationale used by the court.” [MPEP § 2144.04, 8th Edition, Rev.2, May 2004; page 2100-138].

The main cited legal precedent for omission of an element and its function in the MPEP 2144.04(II.A.) is *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989).

Applicant respectfully submits that the facts of *Ex parte Wu* are not sufficiently similar to the facts in Applicant's patent application and the rejection of Applicant's claims to apply the legal precedent of "eliminating element".

The claims and application in *Ex parte Wu* were "directed to a process for using a particular composition to inhibit corrosion on a metal surface." [*Ex parte Wu*, 10 USPQ 2031 at 2032 (Bd. Pat. App. & Inter. 1989)]. Patentability in *Ex parte Wu* turned on the material composition and the claim language "consisting of" that excluded other elements from being a part of the claimed material composition. The material composition of the prior art reference in *Ex parte Wu* disclosed all of the elements of the claimed material composition but with additional elements. The court found that omitting the additional elements in the material composition of the prior art reference was obvious.

The *Ex parte Wu* claims recite a "method of decreasing corrosion rate by contacting a metal surface with a material composition consisting of" in the chemical or material science arts and not a computer readable medium or a method of modifying a SPICE netlist for a software simulator in the general field of computer programming.

Moreover, Applicant's claims 3 and 12 do not recite the limitation "consisting of" in order to exclude other elements from a set of elements. Applicant's claims 3 and 12 recite an additional step of "removing parameter and vector save statements in said SPICE netlist". [Claims 3, 12 as amended, lines 2-3]. This conserves "memory space since a vector measurement may comprise large amounts of data, which would require a substantial memory size if numerous simulations are

performed in the simulation template analysis." [Specification, page 8, lines 7-9].

Additionally, the Office Action does not properly apply the legal precedent to exclude an element found in the prior art reference of Bair. In *Ex Parte Wu*, an element found in the material composition of the prior art reference was excluded in order to make the claims obvious. The Office Action admits that Bair "does not expressly disclose the additional limitation." [Final Office Action, page 9, section 66, line 1]. As Bair does not disclose an additional limitation that is excluded by claims, there is no reason to apply the legal precedent set forth by *Ex Parte Wu*.

For the foregoing reasons, Applicant respectfully submits that it is inappropriate to rely on the legal precedent (eliminating element) of *Ex parte Wu* to reject Applicant's claims.

D. Conclusion

Thus for all of the foregoing reasons, Applicant respectfully submits that the cited combinations of references and legal precedents do not make Applicant's claims 1-18 obvious under 35 USC § 103(a).

Accordingly, Applicant respectfully requests the withdrawal of all the 35 USC § 103(a) claim rejections of claims 1-18.

VI. Claim Amendments

Applicant has amended claims 1-3, 6-12 and 15-18 in this response.

As discussed previously, Applicant has amended independent claims 1 and 10 to clarify the claimed invention.

Dependent claims 2-3 and 11-12 have been amended to include instances of the word --SPICE-- prior to each instance of the word "netlist" to be consistent with the usage of the phrase "SPICE netlist" in the independent claims. Dependent claims 2-3 were further amended to remove the phrase "the step of".

Dependent claims 6-9 and 15-18 have been amended to expand the phrase "nominal selected vector measurement" and pluralize it to recite --nominal values for said selected vector measurements-- to be consistent with the usage of the phrase in the independent claims. Claims 8 and 17 were further amended to correct grammar. Claims 6 and 15 were further amended to correct their dependencies to the independent claims 1 and 10 as the dependent claims 5 and 14 from which they previously depended have been cancelled.

These claim amendments were not made for reasons related to patentability.

VII. New Claims

Applicant has added new claims 19-39 by this response.

New claims 19-24 are dependent claims depending directly or indirectly from independent claim 1.

New claims 25-30 are dependent claims depending directly or indirectly from independent claim 10.

As discussed previously, Applicant believes that it has placed independent claims 1 and 10 in condition for allowance such that dependent claims 19-24 and 25-30 dependent respectfully there from with added limitations are also in condition for allowance.

New claims 31-39 are new claims of a first impression, including independent claim 31.

Independent claim 31 includes the step of "altering at least one circuit parameter value of a component in the SPICE netlist in a pre-determined manner to generate at least one altered circuit parameter value". As previously discussed, Bair does not disclose altering circuit parameter values and thus it is respectfully submitted that independent claim 31 is also in condition for allowance with independent claims 1 and 10.

New claims 32-39 depend directly or indirectly from independent claim 31. Applicant believes that independent claim 31 is in condition for allowance such that dependent claims 32-39 depending there from with added limitations are also in condition for allowance.

Applicant respectfully submits that new claims 31-39 of a first impression are also in condition for allowance.

VIII. Specification Amendments

Applicant has amended two paragraphs of the specification.

In the paragraph beginning at page 12, line 5, the equation has been corrected to include a right parenthesis so that it is consistent with the text of the paragraph. Applicant previously remarked that it was corrected but inadvertently forgot to include the actual amendment to the paragraph in the prior response.

In the paragraph beginning at page 13, line 25, an instance of the acronym "WCS" has been corrected to be consistent with its use elsewhere in the paragraph and grammar has been corrected.

CONCLUSION

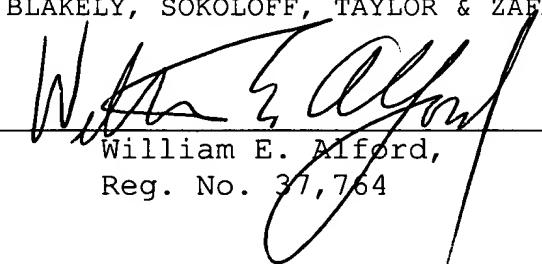
In view of the foregoing it is respectfully submitted that the pending claims are in condition for allowance. Reconsideration is requested. Allowance of the claims at an early date is solicited.

The Examiner is invited to contact Applicant's undersigned counsel by telephone at (714) 557-3800 to expedite the prosecution of this case should there be any unresolved matters remaining. Please charge any shortage in fees in connection with the filing of this paper to Deposit Account 02-2666 and please credit any excess fees to such deposit account.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: August 18, 2004

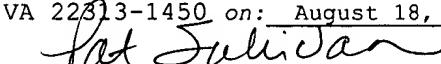


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Pat Sullivan

8/18/04
Date